

Date: Wednesday, 08/10/2008 2:00:19 PM
User: Julie Lecocq

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services
Job Number : 42513-
Estimate Number : 10437
P.O. Number :
This Issue : 08/10/2008 S.O. No. :
Prsht Rev. : NC
First Issue : / / Type : SMALL / MED FAB
Previous Run : 41938

Drawing Name : WEARPLATE

Part Number : D33191
Drawing Number : D3319 REV. B
Project Number : N/A
Drawing Revision : B
Material :
Due Date : 25/10/2008

Qty: 12 Um: Each

Written By :
Checked & Approved By : JLD 08.10.08
Comment : Est: B 05.10.14 Added step 9, dwg rev B KJ/EC
Est Rev: C Now on Waterjet 06-10-26 JLM

Additional Product

Job Number:



Seq. #: Machine Or Operation: Description :

1.0 M1010S18GA 1010/1025 SHEET .048



Comment: Qty.: 0.6594 sf(s)/Unit Total : 7.9128 sf(s)

1010/1025/A21/6aA SHEET .048

Batch: 104421 B 8-10-16

2.0 WATER JET 109022 FLOW WATER JET



Comment: FLOW WATER JET

1-Cut as per Dwg D3319

Dwg Rev: BProg Rev: B

2-Deburr if necessary B 8-10-16

3.0 QC2 INSPECT PARTS AS THEY COME OFF MACHINE



Comment: INSPECT PARTS AS THEY COME OFF MACHINE

4.0 QC8 SECOND CHECK



Comment: SECOND CHECK

5.0 SMALL FAB 1 SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1

Deburr if necessary

n/a Done at step #2.2

S 08/10/17

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Wednesday, 08/10/2008 2:00:19 PM
User: Julie Lecocq

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: WEARPLATE

Job Number: 42513

Part Number: D33191

Job Number:



Seq. #: Machine Or Operation: Description :

6.0 BRAKE NC NC BRAKE



Comment: NC BRAKE

1- Form using DT8326 & DT8261 as per Dwg D3319 Rev: B
2- Form flat on press using DT8776 block

SB 08/10/21

(17)

7.0 QC6 DIMENSIONAL CHECK



Comment: DIMENSIONAL CHECK

SB 08/10/21 (17)

8.0 LARGE FAB 1 LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

1- Layout weld location as per Dwg D3319 using jig D3319-1T3
2- Weld hard surface using D3319-1T2 per QSI 004 and Dwg D3319 Rev: B

(17)

Qty Part Number Description Batch
A/R N/A 7560 Hardcoat Rod M109560

FL 8-10-28

9.0 QC10 VISUAL INSPECTION OF GROUND WELDS



Comment: VISUAL INSPECTION OF GROUND WELDS

S 08/10/28 (17)

10.0 QC5 INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

S 08/10/28 (17)

11.0 POWDER COATING POWDER COATING



Comment: POWDER COATING

Powder Coat Grey Sandtex (Ref: 4.3.5.6) as per QSI 005 4.3

START TIME: 9:20
OVEN TEMPERATURE: 320°
FINISH TIME: 9:50

FL 08/10/28

(17)

12.0 QC3 INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT

M-1 08/10/28 (17)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Wednesday, 08/10/2008 2:00:19 PM
User: Julie Lecocq

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: WEARPLATE

Job Number: 42513

Part Number: D33191

Job Number:



Seq. #:

Machine Or Operation:

Description :

13.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify on inside surface using a permanent fine point marker with the following:

TCCA-PDA, Dart Aerospace Ltd.

P/N: D3319-1, B/N: BXXXXX

For Product Eligibility see PDA05-18

and Stock

Location: _____

51496

85 08/10/2008

14.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

10 08/10/2008

Job Completion



10 08/10/2008

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order: 42513
Description: Wearplate		Part Number: D3319-1
Inspection Dwg: D3319	Rev: B	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

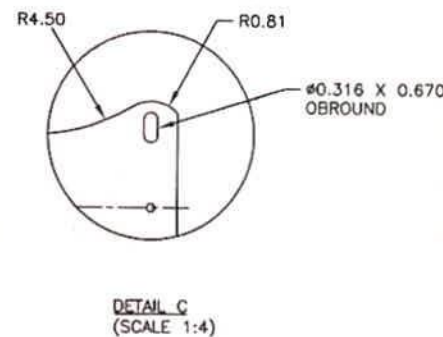
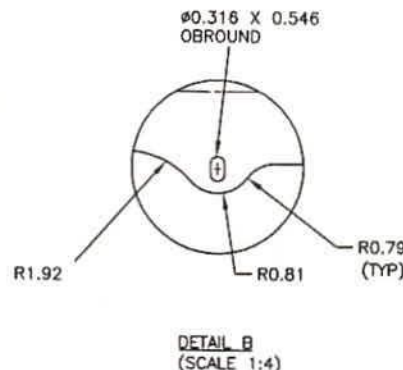
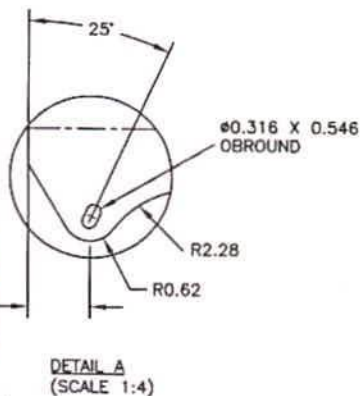
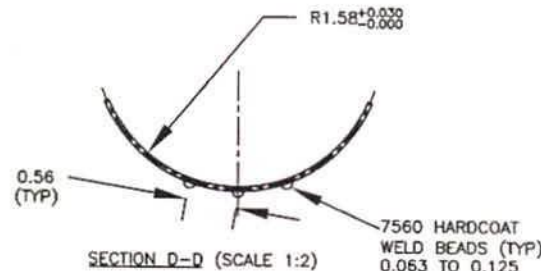
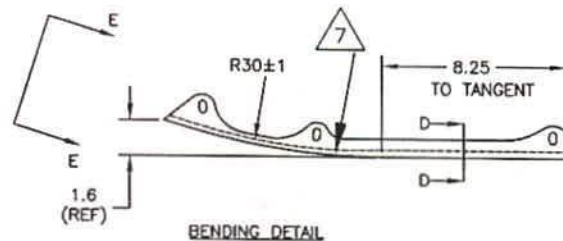
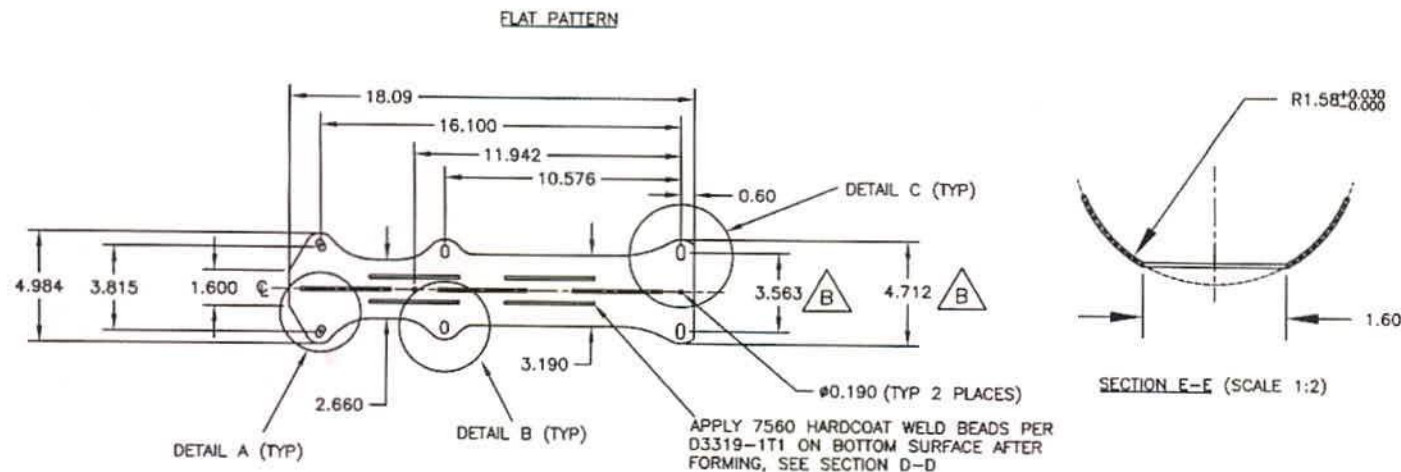
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
4.984	+/-0.010	4.981	X			
1.600	+/-0.010	1.604	X			
2.660	+/-0.010	2.658	X			
3.190	+/-0.010	3.196	X			
3.563	+/-0.010	3.560	X			
4.712	+/-0.010	4.716	X			
0.60	+/-0.030	.600	X			
10.576	+/-0.010	10.576	X			
11.942	+/-0.010	11.947	X			
18.09	+/-0.030	18.09	X			
Ø0.316 x 0.546	+0.006/-0.001 x +/-0.010	.317 x .549	X			
Ø0.316 x 0.670	+0.006/-0.001 x +/-0.010	.317 x .671	X			
Ø0.190	+0.005/-0.001	.194	X			

Measured by: JB	Audited by: S	Prototype Approval:	N/A
Date: 8-10-16	Date: 08/10/17	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	07.05.31	New Issue	KJ/JLM	JB

DART

DESIGN	DRAWN BY	DART AEROSPACE LTD HAMESBURY, ONTARIO, CANADA
PH1	PH1	
CHECKED	APPROVED	DRAWING NO.
DATE	05.06.06	D3319
		TITLE
		WEARPLATE
		NEW ISSUE
		WIDEN HOLES, REDUCE WIDTH -3/-5/-7
		SCALE
		1:8
		REV. B
		SHEET 1 OF 5



RELEASED
05-07-30

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE

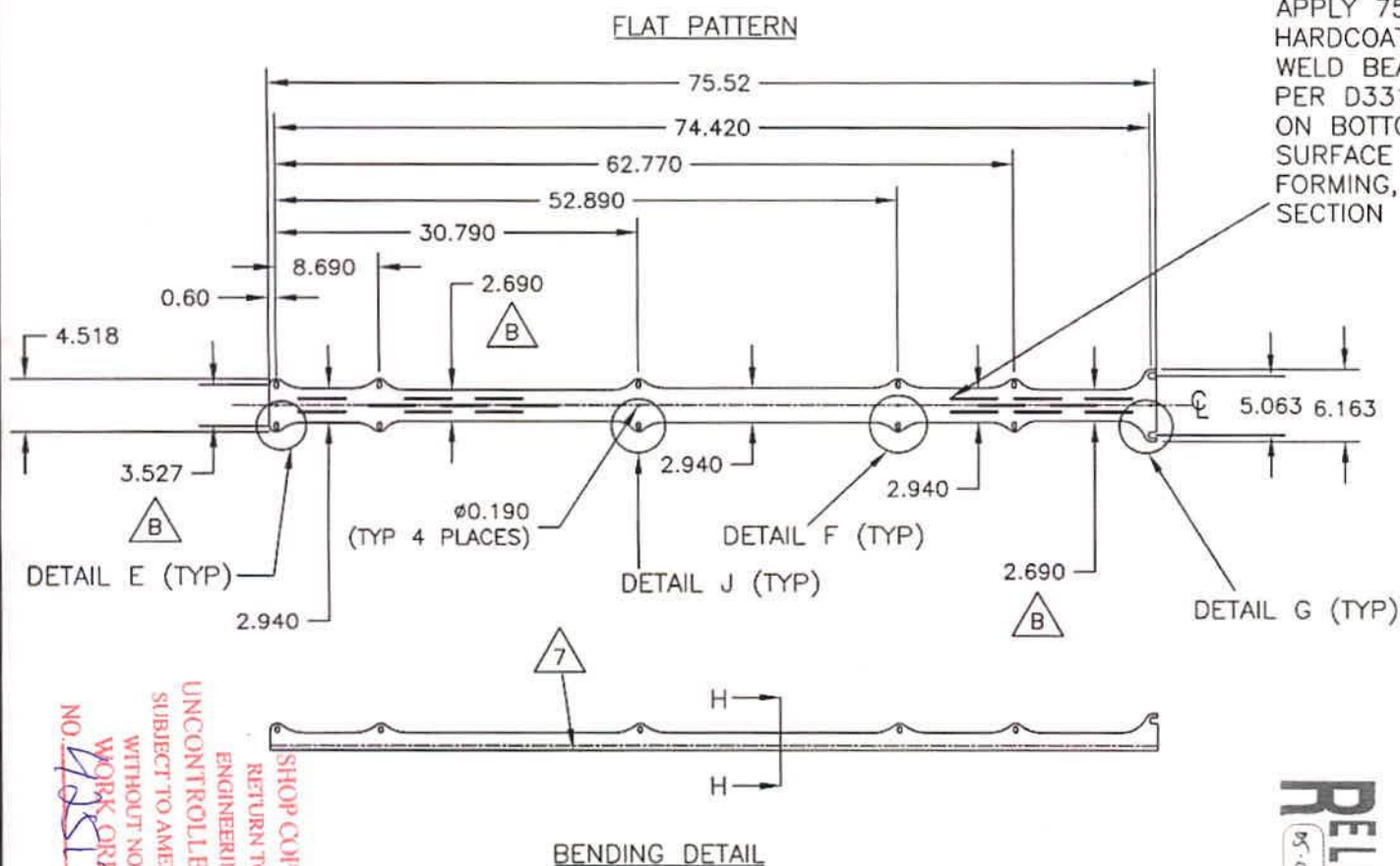
D3319-1 WEARPLATE

- 1) MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A1008 OR CSA G40-21, 38W/44W/50W/60W/70W SERIES STEEL 18 GAUGE (0.048 THICK)
- 2) FINISH: POWDER COAT GREY SANDTEX (REF.4.3.5.6) PER DART QSI 005 4.3
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) PART IS SYMMETRICAL ABOUT CENTERLINE
- 5) ALL DIMENSIONS IN INCHES
- 6) WELD PER DART QSI 004
- 7) IDENTIFY ON INSIDE SURFACE AS INDICATED USING FINE POINT PERMANENT INK MARKER:
"TCCA-PDA, DART AEROSPACE LTD., P/N D3319-1 B/N BXXXXX, FOR PRODUCT ELIGIBILITY SEE PDA05-18"

DART

DESIGN	DRAWN BY	DART AEROSPACE LTD
01	01	HAWKESBURY, ONTARIO, CANADA
CHECKED	APPROVED	DRAWING NO.
01	01	D3319
DATE	TITLE	REV. B
05.06.06	WEARPLATE	SHEET 2 OF 5
		SCALE
		1:15

APPLY 7560
HARDCOAT
WELD BEADS
PER D3319-3T1
ON BOTTOM
SURFACE AFTER
FORMING, SEE
SECTION H-H



SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 42513

D3319-3 WEARPLATE

- 1) MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A1008 OR CSA G40-21, 38W/44W/50W/60W/70W SERIES STEEL 18 GAUGE (0.048 THICK)
- 2) FINISH: POWDER COAT GREY SANDTEX (REF.4.3.5.6) PER DART QSI 005 4.3
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) PART IS SYMMETRICAL ABOUT CENTERLINE
- 5) ALL DIMENSIONS IN INCHES
- 6) WELD PER DART QSI 004
- 7) IDENTIFY ON INSIDE SURFACE AS INDICATED USING FINE POINT PERMANENT INK MARKER:
"TCCA-PDA, DART AEROSPACE LTD., P/N D3319-3 B/N BXXXXX,
FOR PRODUCT ELIGIBILITY SEE PDA05-18"

RELEASED
05-07-30

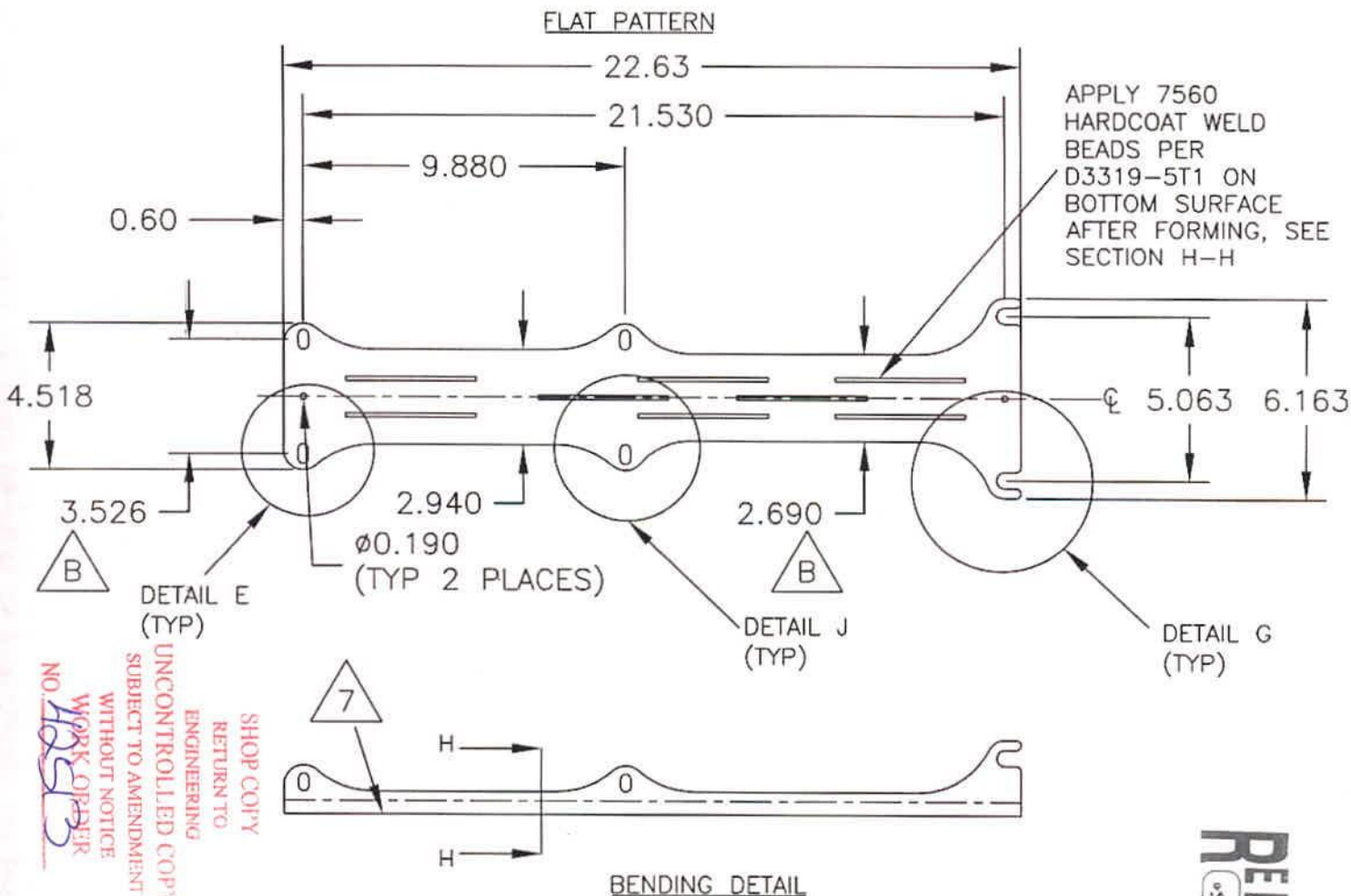
Copyright © 2004 by DART AEROSPACE LTD

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA

DESIGN	D41	DRAWN BY	GH	DART AEROSPACE LTD HAMKESBURY, ONTARIO, CANADA	
CHECKED	HH	APPROVED	HH	DRAWING NO.	REV. B
				D3319	SHEET 3 OF 5
DATE	05.06.06			TITLE	SCALE
				WEARPLATE	1:5

05-09-30
RELEASED



D3319-5 WEARPLATE

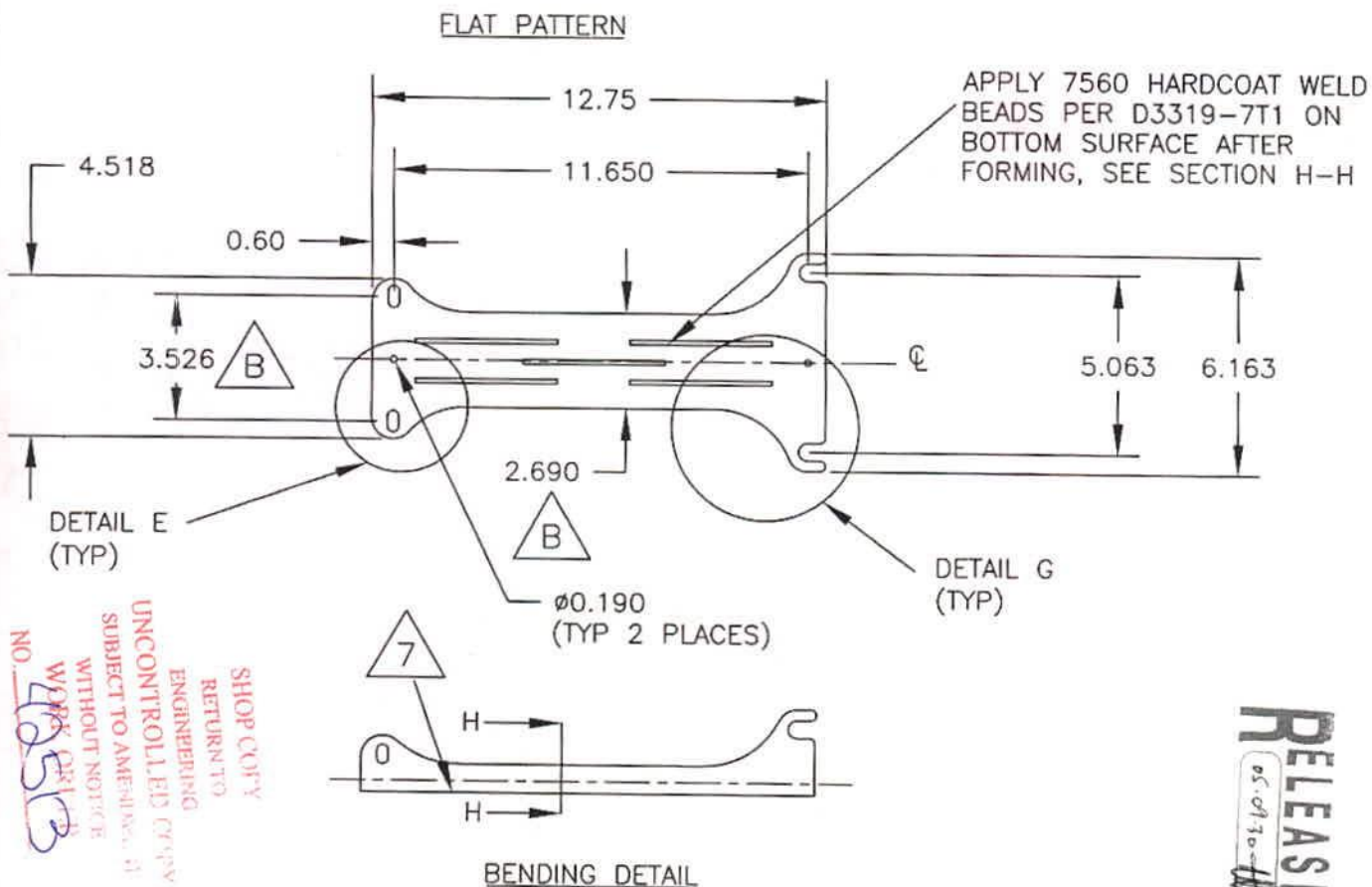
- 1) MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A1008 OR CSA G40-21,
38W/44W/50W/60W/70W SERIES STEEL 18 GAUGE (0.048 THICK)
- 2) FINISH: POWDER COAT GREY SANDTEX (REF.4.3.5.6) PER DART QSI 005 4.3
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) PART IS SYMMETRICAL ABOUT CENTERLINE
- 5) ALL DIMENSIONS IN INCHES
- 6) WELD PER DART QSI 004
- 7) IDENTIFY ON INSIDE SURFACE AS INDICATED USING FINE POINT PERMANENT INK MARKER:
"TCCA-PDA, DART AEROSPACE LTD., P/N D3319-5 B/N BXXXXX,
FOR PRODUCT ELIGIBILITY SEE PDA05-18"

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

Copyright © 2004 by DART AEROSPACE LTD

DART

DESIGN	DRAWN BY	DART AEROSPACE LTD HAMMERSBURY, ONTARIO, CANADA		
PH	PH	DRAWING NO.	REV. B	
CHECKED PH	APPROVED PH	D3319	SHEET 4 OF 5	
DATE 05.06.06		TITLE WEARPLATE	SCALE 1:5	

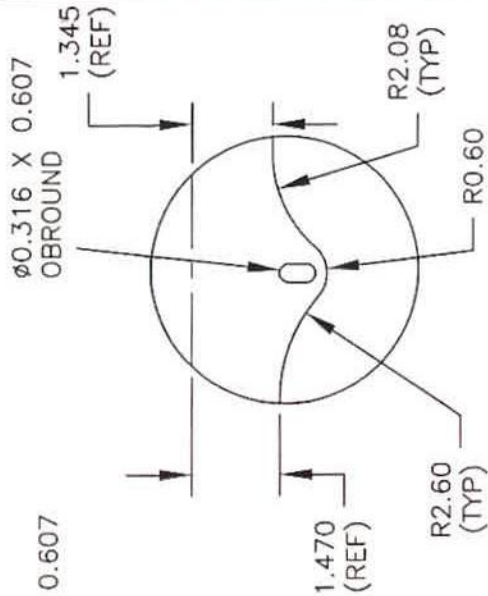
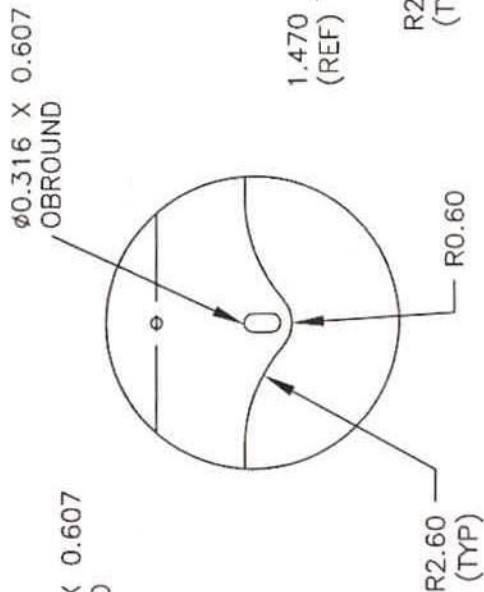
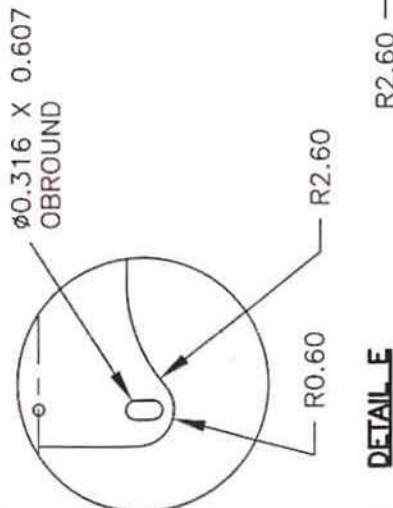
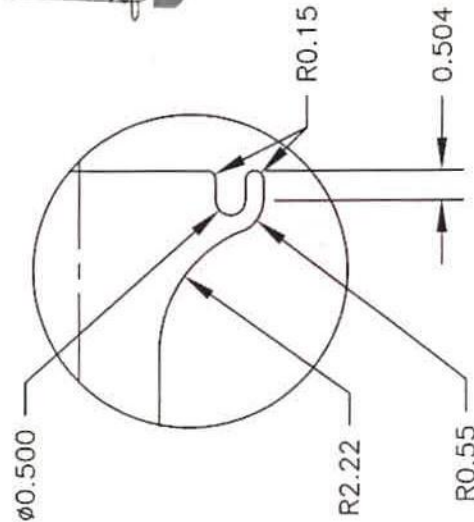
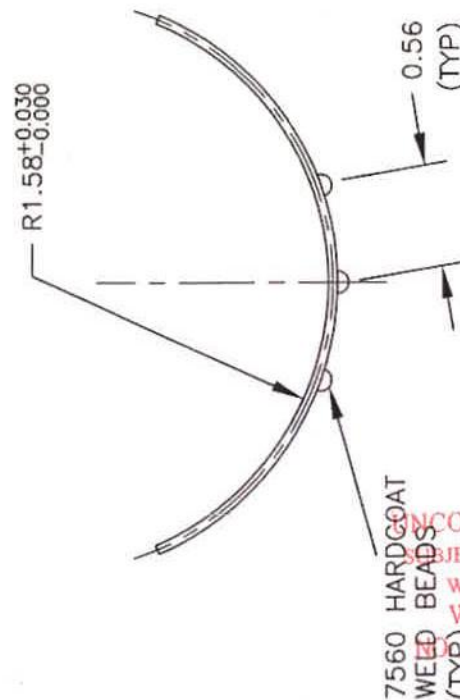


D3319-7 WEARPLATE

- 1) MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A1008 OR CSA G40-21, 38W/44W/50W/60W/70W SERIES STEEL 18 GAUGE (0.048 THICK)
- 2) FINISH: POWDER COAT GREY SANDTEX (REF.4.3.5.6) PER DART QSI 005 4.3
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) PART IS SYMMETRICAL ABOUT CENTERLINE
- 5) ALL DIMENSIONS IN INCHES
- 6) WELD PER DART QSI 004
- 7) IDENTIFY ON INSIDE SURFACE AS INDICATED USING FINE POINT PERMANENT INK MARKER:
"TCCA-PDA, DART AEROSPACE LTD., P/N D3319-7 B/N BXXXXX,
FOR PRODUCT ELIGIBILITY SEE PDA05-18"

DART

DESIGN <i>PH</i>	DRAWN BY <i>PH</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3319	REV. B SHEET 5 OF 5
DATE 05.06.06	TITLE WEARPLATE		SCALE 1:3

RELEASED
05-09-30**DETAIL J****DETAIL F****DETAIL E****DETAIL G****SECTION H-H
(SCALE 1:1)**

7560 HARDCOAT
WELD BEADS
(TYP) TO 0.125
0.063 HIGH
SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
42510

Copyright © 2004 by DART AEROSPACE LTD

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.